

**PRESENTATION**

They are used as a subscriber line cable in local distribution networks for short and medium distances. The cavities of the cable core are filled continuously with viscous compound to avoid water penetration.

**STANDARD**

VDE 816

**CABLE STRUCTURE**

**1- Conductor**

Each conductor consists of a solid wire of annealed, grade A copper, having a diameter of 0.6 mm or 0.8 mm.

**2- Insulation**

Each conductor is insulated with a layer of solid polyethylene. The thickness shall be according to DIN VDE 0816 table 4

**3- Stranding**

- Quadding

Four appropriately coloured insulated conductors are assembled together to form a quad.

- Unit stranding

- Five star quads stranded to sub units; each 5 or 10 sub units stranded to main units and the sub or main units stranded to cable core.

**4- Filling**

The cables are fully filled with a high grade, high drop point, petroleum based, jelly compound..

**5- Wrapping**

A wrapping tape is applied over the cable core It consists of:

- An outer layer of absorbing paper materiel.
- An inner layer of insulating polyester tape.

**6- Moisture barrier**

Over the wrapping tape, is applied an aluminum tape (0.2 mm of thickness) coated on both sides with polymer.

**7- Sheath**

The sheath is black low density polyethylene (2YM2) containing  $2,5 \pm 0,5\%$  carbon black



**ELECTRICAL PROPERTIES**

**1- Electrical resistance.**

Conductor diameter (mm)	Resistance max. ( ? /km)
0,6	65
0,8	36,6

**2- Dielectric strength**

The insulation shall resists without any defect to the application of a tension for 60 sec, according to the table below:

Conductor	Between conductors	Between screen and conductors
0,6 mm et 0,8 mm	0,5 kV	2 kV

**3- Insulation resistance**

>1500 M? .km

**4- Mutual capacitance**

Conductor	100% of values (nF / km)	95% of values (nF / km)	80% of values (nF / km)
0.6 mm	< 52	< 50	< 48
0.8 mm	< 55	< 53	< 50